

Appl. No. : 09/991,863
Filed : November 16, 2001

AMENDMENTS TO THE CLAIMS

1-13. (Cancelled).

14. (Currently amended) A method of conducting an optical inspection of a specimen in association with an optical disc and at least one optical reader, said method comprising the steps of:

providing a specimen support surface associated with said optical disc;

providing a first optical detector and a second optical detector wherein said first and second optical detectors are positioned in operable proximity to opposite sides of the optical disc;

providing ~~an~~ optically readable encoded information in association with said optical disc;

reading said encoded information with said at least one optical reader;

optically inspecting said specimen using a light source; and

separately measuring a first output from said first optical detector and a second output from said second optical detector.

15. (Previously presented) The method of claim 14 wherein said step of optically inspecting said specimen includes the use of three light detectors.

16. (Cancelled).

17. (Previously presented) The method of claim 14 further comprising:

providing a third optical detector; and

separately measuring a third output from said third optical detector.

18. (Currently amended) A method of conducting an optical inspection of a specimen in association with an optical disc and at least one optical reader, said method comprising the steps of:

providing a specimen support surface associated with said optical disc;

providing a first optical detector and a second optical detector;

providing optically readable encoded information in association with said optical disc;

reading said encoded information with said at least one optical reader;

optically inspecting said specimen using a light source;

separately measuring a first output from said first optical detector and a second output from said second optical detector; and

~~The method of claim 17 including comparing said first output and said second output to produce a ratio thereof.~~

19. (Previously presented) The method of claim 18 including using said first output and said ratio in an analysis of the inspection of said specimen.

20. (Currently amended) The method of claim ~~19~~ 45 including using said third output in said analysis.

21. (Currently amended) The method of any one of claims ~~14, 15, 17,~~ 18, 19 or 20 wherein said first and second optical detectors are positioned on opposite sides of said optical disc.

22. (Currently amended) ~~The method of claim 15 wherein a first detector of said three light detectors is on one side of said optical disc and a second detector and a third detector of said three light detectors is on an opposite side of said optical disc relative to said first detector~~
A method of conducting an optical inspection of a specimen in association with an optical disc and at least one optical reader, said method comprising the steps of:

providing a specimen support surface associated with said optical disc;

providing a first optical detector located in operable proximity to one side of said optical disc, a second optical detector, and a third optical detector, wherein the second and third optical detectors are located in operable proximity to ~~on~~ an opposite side of said optical disc relative to said first detector;

providing optically readable encoded information in association with said optical disc;

reading said encoded information with said at least one optical reader;

optically inspecting said specimen using a light source; and

separately measuring a first output from said first optical detector and a second output from said second optical detector.

23. (Currently amended) The method any one of claims 14 or ~~of claim 21~~ wherein said first optical detector reads reflected light modulated by said encoded information on said optical disc.

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24. (Previously presented) The method of claim 23 wherein said second optical detector reads light transmitted through said optical disc.

25. (Previously presented) The method of claim 24 wherein said second optical detector reads light transmitted through said encoded information after interaction of said transmitted light with said specimen.

26. (Previously presented) The method of claim 25 wherein said third optical detector reads light transmitted through said encoded information after interaction of said transmitted light with said specimen.

27. (Currently amended) The method of claim 26 wherein an analysis of said specimen uses said third output only when said second output or the ratio of said first output relative to said second output exceeds a predetermined value.

28. (Previously presented) A method for carrying out an optical inspection and analysis of a biological specimen in association with a computer, said method comprising the steps of:

- providing an optically readable encoded information in conjunction with an optical disc capable of being scanned and read by an optical reader associated with said computer;

- providing a sample support surface associated with said optical disc;

- placing a biological specimen within said sample support surface;

- optically inspecting said specimen with a light source and a detector system and producing a first data stream suitable for input to said computer; and

- optically reading the encoded information on said optical disc and producing a second data stream suitable for input to said computer, said detector system for optically inspecting said specimen including a first detector on one side of said optical disc and a second detector on an opposite side of said optical disc.

29. (Previously presented) The method of claim 28 wherein said encoded information is provided in a partially light reflective and partially light-transmissive layer within said optical disc.

30. (Previously presented) The method of claim 29 wherein a first output of said first detector and a second output of said second detector are compared in a ratio which is used in producing said first data stream.

31. (Previously presented) The method of either claim 29 or 30 wherein said first detector reads reflected light modulated by said encoded information and said first output is used in producing said second data stream.

32. (Previously presented) The method of claim 28 wherein a third detector is provided on said opposite side of said optical disc.

33. (Previously presented) The method of claim 32 wherein said third detector is used in producing said first data stream.

34. (Previously presented) The method of claim 33 wherein said third detector is provided to be used when said second output or a ratio of said first and second output exceed a predetermined value.

35. (Currently amended) The method of claim 34 wherein said third detector is provided to increase the resolution with which the surface of the disc is read relative to that of said second detector.

36. (Currently amended) A method of conducting an optical inspection of a specimen in association with an optical disc, said method comprising the steps of:

providing a specimen support surface associated with said optical disc;

providing optically readable encoded information in a partially light-reflective and partially light-transmissive layer within said optical disc;

optically inspecting said specimen using a light source, a first detector and a second detector; and

separately measuring a first output from said first detector and a second output from said second detector.

37. (Cancelled)

38. (Cancelled)

39. (Currently amended) The method according to claim ~~38~~ 36 wherein said first output and said second output are compared in a ratio to produce a first data stream.

40. (Currently amended) The method according to claim 39 wherein said first detector reads reflected light modulated by said optically readable encoded information and ~~said first output~~ said first detector is used to produce a second data stream.

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41. (Currently amended) The method according to claim 40 further comprising the step of providing a third detector on the same side of said optical disc as said second detector and on the opposite side of said optical disc from said first detector.

42. (Previously presented) The method according to claim 41 wherein said third detector is used in producing said first data stream.

43. (Previously presented) The method according to claim 42 wherein said third detector is provided to be used when said second output or a ratio of said first output and said second output exceed a predetermined value.

44. (Currently amended) The method according to claim 43 wherein said third detector is provided to increase the resolution with which the surface of the disc is read relative to that of said second detector.

45. (New) The method of claim 18 further comprising:

providing a third optical detector; and

separately measuring a third output from said third optical detector.

46. (New) A method of conducting an optical inspection of a specimen in association with an optical disc, said method comprising the steps of:

providing a specimen support surface associated with said optical disc;

optically inspecting said specimen using a light source, a first detector located in operable proximity to a first side of said optical disc and a second detector located in operable proximity to a second side of said optical disc; and

separately measuring an output from said first detector and an output from said second detector.

47. (New) The method according to claim 46 wherein said first output and said second output are compared in a ratio to produce a first data stream.

48. (New) The method according to claim 47 wherein said first detector reads reflected light modulated by said optically readable encoded information and said first detector is used to produce a second data stream.

49. (New) The method according to claim 48 further comprising the step of providing a third detector on the same side of said optical disc as said second detector and on the opposite side of said optical disc from said first detector.

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50. (New) The method according to claim 49 wherein said third detector is used in producing said first data stream.

51. (New) The method according to claim 50 wherein said third detector is provided to be used when said second output or a ratio of said first output and said second output exceed a predetermined value.

52. (New) The method according to claim 51 wherein said third detector is provided to increase the resolution with which the surface of the disc is read relative to that of said second detector.